

**WHAT IS CLAIMED IS:**

1. A protective shield for a feed nozzle, wherein said feed nozzle incorporates a slit at its dispensing end for dispensing a spray of fluid feed, comprising:

a shield completely surrounding the cylindrical circumference of said feed nozzle; and,

an extension of said shield extending around the end of said feed nozzle so as to cover a portion of said dispensing end of said feed nozzle, said extension of said shield having an open portion corresponding to, but larger than, said slit in said feed nozzle.

2. The protective shield of Claim 1 wherein said protective shield includes a refractory-lined portion.

3. The protective shield of Claim 1 wherein said open portion is large enough to enclose said spray emerging from said feed nozzle without making physical contact with said spray.

4. The protective shield of Claim 1 wherein said open portion is in the shape of a rectangle.

5. The protective shield of Claim 1 wherein said open portion is narrower at its longitudinal center and flares outwardly in each direction from said center.

6. The protective shield of Claim 1 wherein the longitudinal sides of said open portion include inclined planes in the direction of said slit in said feed nozzle.

7. The protective shield of claim 6 wherein said inclined planes are inclined at an angle of from about 5 degrees to about 10 degrees.

8. A method for protecting a feed nozzle wherein said feed nozzle has a slit in its end for spraying a fluid feed therefrom, comprising the steps of:

surrounding the cylindrical circumference of said feed nozzle with a protective shield;

enclosing a portion of said end of said feed nozzle with an extension of said protective shield; and,

forming an opening in said extension wherein said opening in said extension is larger than said slit in said feed nozzle.

9. The method of claim 8 further including the steps of:

performing spray visualization tests to determine the optimal shape of said opening in said extension; and,

forming said determined optimal shape in said opening.